WHAT IS CLAIMED IS:

1. A process for removing arsenic compounds from the distillation bottoms obtained in the distillation of arsenic-containing hydrogen fluoride comprising

- (a) concentrating the distillation bottoms by evaporation of hydrogen fluoride until the temperature at the bottom is from 40 to 60°C, and
- (b) reacting the residue with calcium hydroxide, calcium oxide, or a mixture thereof.
- A process according to Claim 1 wherein the water content of
 the bottoms after concentration is less than 20% by weight.
 - 3. A process according to Claim 1 wherein the arsenic-containing hydrogen fluoride contains not more than 300 ppm of water, not more than 50 ppm of sulfuric acid, and not more than 50 ppm of sulfur dioxide.

4. A process according to Claim 1 wherein the amount of calcium hydroxide, calcium oxide, or mixture thereof corresponds to the amount necessary for stoichiometric conversion of the bottom products sulfuric acid, hydrofluoric acid, and hexafluoroarsenic acid into the corresponding calcium compounds.

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The way